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Masaki Kato

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DICKSTEIN SHAPIRO LLP
1825 EYE STREET NW
Washington, DC 20006-5403

EXAMINER

FISCHER, MARK L

ART UNIT

PAPER NUMBER

2627

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DELIVERY MODE

11/03/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,481	Applicant(s) KATO ET AL.	
	Examiner Mark Fischer	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6-9,11 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-9,11 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Amendment filed on July 14, 2009.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 14/8 and 14/9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites the limitation of “wherein for the first region of the first test writing area, or the second region of the second test writing area, the apparatus is arranged such that the respective recording of data in the region thereby converting the region into a recorded state comprises performing an operation to make the region logically zero” (emphasis added), where there is a lack of antecedent basis for the recording of data in the first region thereby converting the first region into a recorded state.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1, 2/1, 2/6, 4, 6, 8, 9, 11/8, and 11/9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narumi et al. (EP 1,318,509 A1, hereinafter Narumi) in view of Spruit (U.S. Pub. No. 2002/0085462 A1).

Regarding claim 1, Narumi discloses a method of recording information using a laser on a multilayer optical disk (see Fig. 8) having a plurality of recording layers, the plurality of recording layers including a first recording layer (820) and a second recording layer (830), the second recording layer being a recording layer adjacent the first recording layer, the first recording layer having a first test writing area (826) to be used for calibration of write power and the second recording layer having a second test writing area (836) to be used for calibration of write power, wherein a first region of the first test writing area is superposed with a second region (836) of the second test writing area (836) when considered in the direction in which the laser is arranged to irradiate (regions of 826 and 836 overlap in Fig. 8), the method comprising: if the second region of the second test writing area is unrecorded (¶ [0111], area 836 is initially unused), recording data in the second region of the second test writing area, thereby converting the second region of the second test writing area into a recorded state (¶ [0112], test recording is performed on area 836); once the second region of the second test writing area has been converted into a recorded state, performing test writing in the first region of the first test writing area (obvious from the context of Example 3 (¶ [0115] and [0118]) that test recording is first performed on second test writing area 836, and further since disc 800 is a two-layer disc with TEST areas 826 and 836 for both layers, then TEST area 826 is used (i.e. test writing in 826) after test writing in 836); and wherein before performing the test writing in the first region of the first test writing area, if the first region of the first test writing area is unrecorded (¶ [0121]), the

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method comprises: recording data in the first region of the first test writing area, thereby converting the first region of the first test writing area into a recorded state (¶ [0121], area 875 which includes area 826 is placed in recorded state prior to test writing in area 836). Narumi does not explicitly disclose and then clearing the first region of the first test writing area; and wherein the clearing of the first region of the first test writing area comprises performing an erasure operation to make the first region unrecorded. However, Spruit discloses clearing a test writing area before test writing (¶ [0010-0011]); and wherein the clearing of the test writing area comprises performing an erasure operation to make the first region unrecorded (¶ [0010-0011]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Narumi with Spruit with the motivation to achieve more accurate and unambiguous write power level values for new recording mediums (Spruit, ¶ [0011]).

Regarding claim 2/1, Narumi discloses that the second recording layer (830) is the next recording layer with respect to the first recording layer (820) in the direction in which the laser is arranged to irradiate (see Fig. 8).

Regarding claim 2/6, see the rejection of claim 2/1.

Regarding claim 4, see the rejection of claim 1.

Regarding claim 6, see the rejection of claim 1.

Regarding claim 8, see the rejection of claim 1.

Regarding claim 9, see the rejection of claim 2/1.

Regarding claim 11/8, see the rejection of claim 1.

Regarding claim 11/9, see the rejection of claim 1.

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6. Claims 7/1, 7/6, 14/8, and 14/9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narumi in view of Spruit further in view of Hayashi (U.S. Pat. No. 5,473,614).

Regarding claim 7/1, Narumi discloses that for the first region of the first test writing area, or the second region of the second test writing area, the respective step of recording data in the region thereby converting the region into a recorded state comprises performing an operation to record dummy information in the region 875 (¶ [0114]). Narumi does not explicitly disclose that the dummy information makes the region logically zero. However, Hayashi discloses that dummy information can be logic "0". It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Narumi in view of Spruit with Hayashi with the motivation to use a type of dummy information that is common and well-known in the art.

Regarding claim 7/6, see the rejection of claim 7/1.

Regarding claim 14/8, see the rejection of claim 7/1.

Regarding claim 14/9, see the rejection of claim 7/1.

7. Claims 1, 2/1, 2/6, 4, 6, 8, 9, 11/8, and 11/9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narumi in view of Kubo et al. (WO 2004/057585, hereinafter Kubo) further in view of Van Der Vleuten et al. (WO 2006/048810 A1, hereinafter Van Der Vleuten).

Regarding claim 1, Narumi discloses a multilayer optical disk (see Fig. 8) having a plurality of recording layers, the plurality of recording layers including a first recording layer (820) and a second recording layer (830), the second recording layer being a recording layer adjacent the first recording layer, the first recording layer having a first test writing area (826) to

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be used for calibration of write power and the second recording layer having a second test writing area (836) to be used for calibration of write power, wherein a first region of the first test writing area is superposed with a second region (836) of the second test writing area (836) when considered in the direction in which the laser is arranged to irradiate (regions of 826 and 836 overlap in Fig. 8). Narumi does not explicitly disclose a method of recording information using a laser on the multilayer disk, the method comprising: if the second region of the second test writing area is unrecorded, recording data in the second region of the second test writing area, thereby converting the second region of the second test writing area into a recorded state; once the second region of the second test writing area has been converted into a recorded state, performing test writing in the first region of the first test writing area. However, Kubo discloses a method comprising: if a region (105) above a first test writing area is unrecorded, recording data in the region (105), thereby converting the region into a recorded state ([0338] and [0340]), and once the region (105) has been converted into a recorded state, performing test writing in a first region (95a) of the first test writing area (95a), where in Kubo, the region (105) is positioned relative to the first region (95a) just as in Narumi, the second region (region of 836) of Narumi is located relative to the first region (region of 826). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Narumi with Kubo with the motivation to perform the OPC process for the first recording layer in a state closer to the actual recording state (Kubo, [0338]). Narumi in view of Kubo does not explicitly disclose wherein before performing the test writing in the first region of the first test writing area, if the first region of the first test writing area is unrecorded, the method comprises: recording data in the first region of the first test writing area, thereby converting the first region of the first test

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writing area into a recorded state, and then clearing the first region of the first test writing area; and wherein the clearing of the first region of the first test writing area comprises performing an erasure operation to make the first region unrecorded. However, Van Der Vleuten discloses before performing test writing in a region of a test writing area, if the region of the test writing area is unrecorded, the method comprises: recording data in the region of the test writing area, thereby converting the region of the test writing area into a recorded state, and then clearing the region of the test writing area; and wherein the clearing of the region of the test writing area comprises performing an erasure operation to make the region unrecorded (Page 7, lines 3-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Narumi in view of Kubo with Van Der Vleuten with the motivation to avoid inconsistent OPC-results (Van Der Vleuten, Page 7, lines 3-10).

Regarding claim 2/1, Narumi discloses that the second recording layer (830) is the next recording layer with respect to the first recording layer (820) in the direction in which the laser is arranged to irradiate (see Fig. 8).

Regarding claim 2/6, see the rejection of claim 2/1.

Regarding claim 4, see the rejection of claim 1.

Regarding claim 6, see the rejection of claim 1.

Regarding claim 8, see the rejection of claim 1.

Regarding claim 9, see the rejection of claim 2/1.

Regarding claim 11/8, see the rejection of claim 1.

Regarding claim 11/9, see the rejection of claim 1.

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8. Claims 7/1, 7/6, 14/8, and 14/9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narumi in view of Kubo further in view of Van Der Vleuten furthermore in view of Hayashi.

Regarding claim 7/1, Kubo discloses the respective step of recording data in the region thereby converting the region into a recorded state ([0338]). Further, Narumi discloses the use of dummy information to make an unrecorded area recorded ([0114]). Narumi in view of Kubo further in view of Van Der Vleuten does not explicitly disclose performing an operation to make the region logically zero. However, Hayashi discloses that dummy information can be logic “0”. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Narumi in view of Kubo further in view of Van Der Vleuten with Hayashi with the motivation to use a type of dummy information that is common and well-known in the art.

Regarding claim 7/6, see the rejection of claim 7/1.

Regarding claim 14/8, see the rejection of claim 7/1.

Regarding claim 14/9, see the rejection of claim 7/1.

Response to Arguments

9. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Van Der Vleuten et al. (U.S. Pub. No. 2009/0059748 A1)
- Eguchi et al. (U.S. Pub. No. 2006/0153035 A1)
- Kubota et al. (U.S. Pat. No. 6,031,803)

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Fischer whose telephone number is (571) 270-3549. The examiner can normally be reached on Monday-Friday from 9:00AM to 6:30PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Fischer/

Examiner, Art Unit 2627

10/17/2009

/HOA T NGUYEN/

Supervisory Patent Examiner, Art Unit 2627